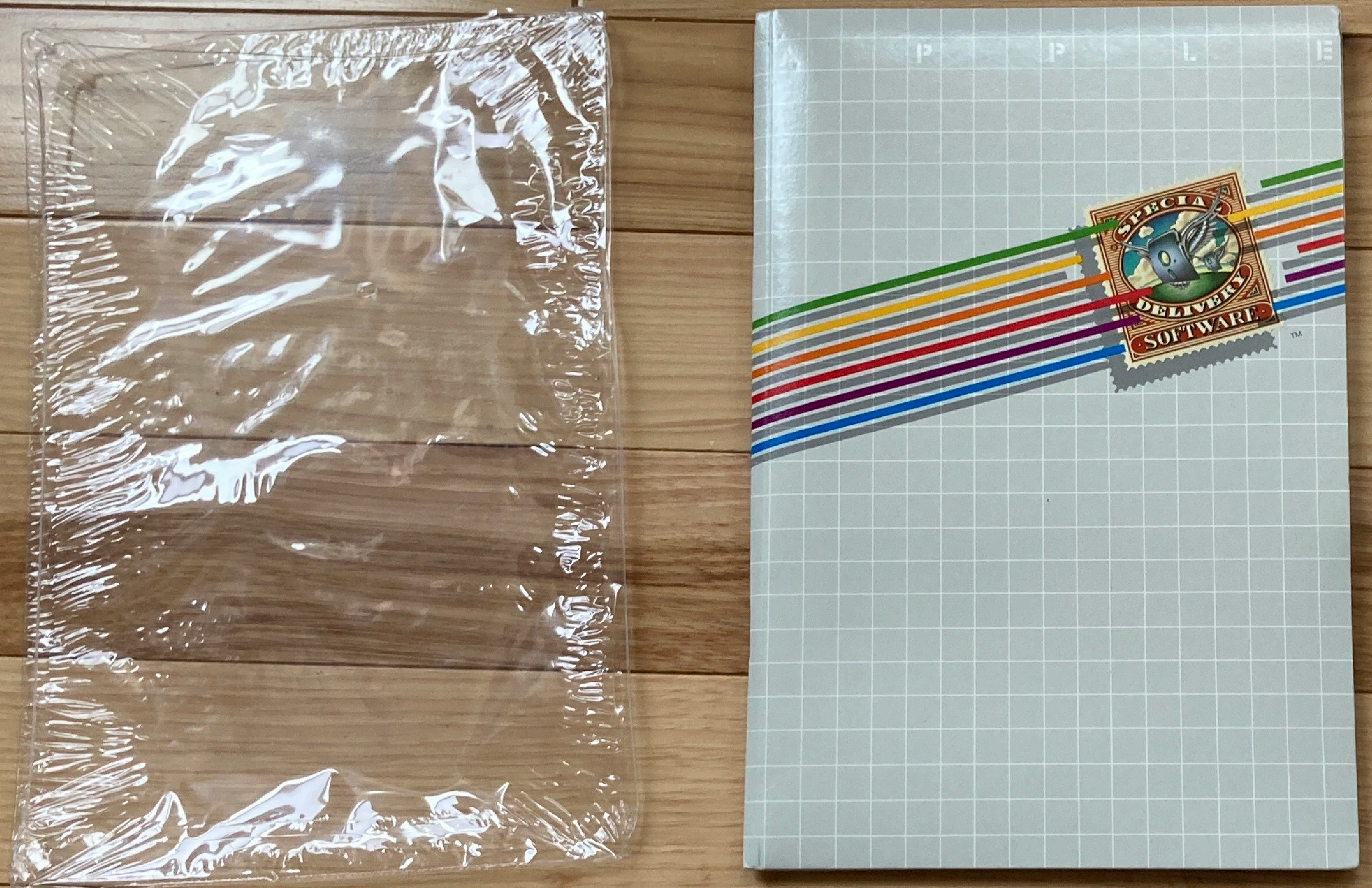
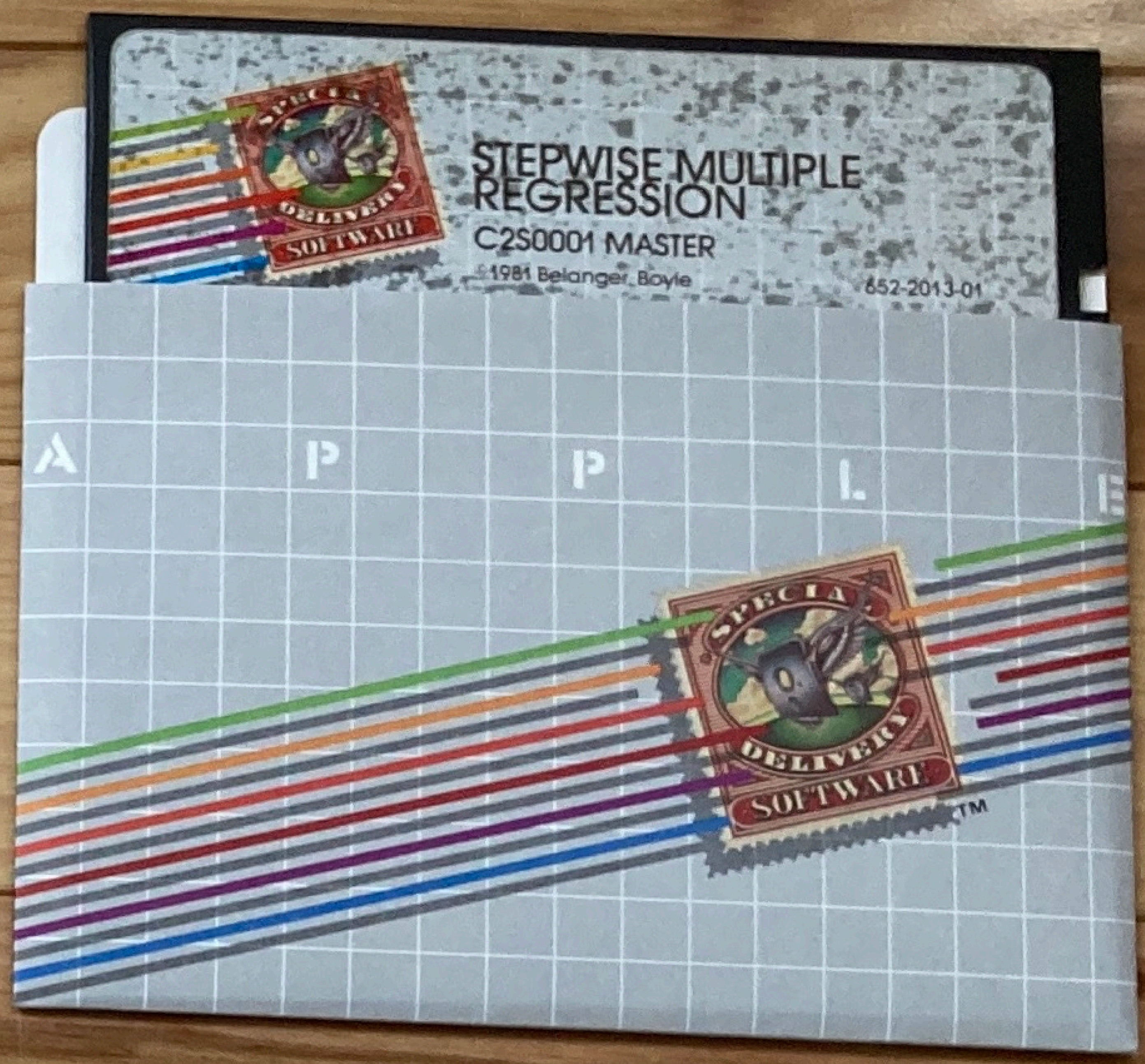
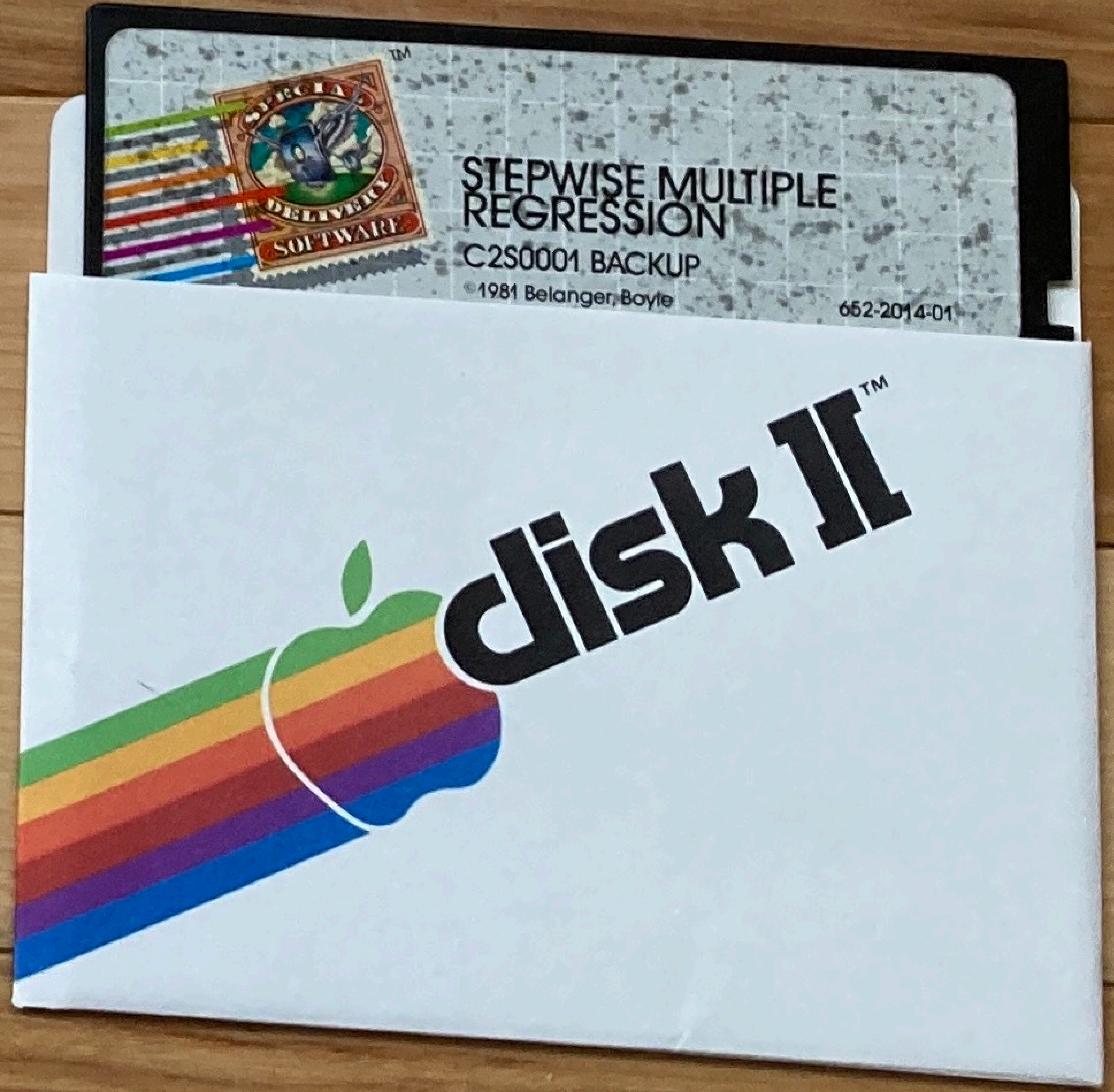
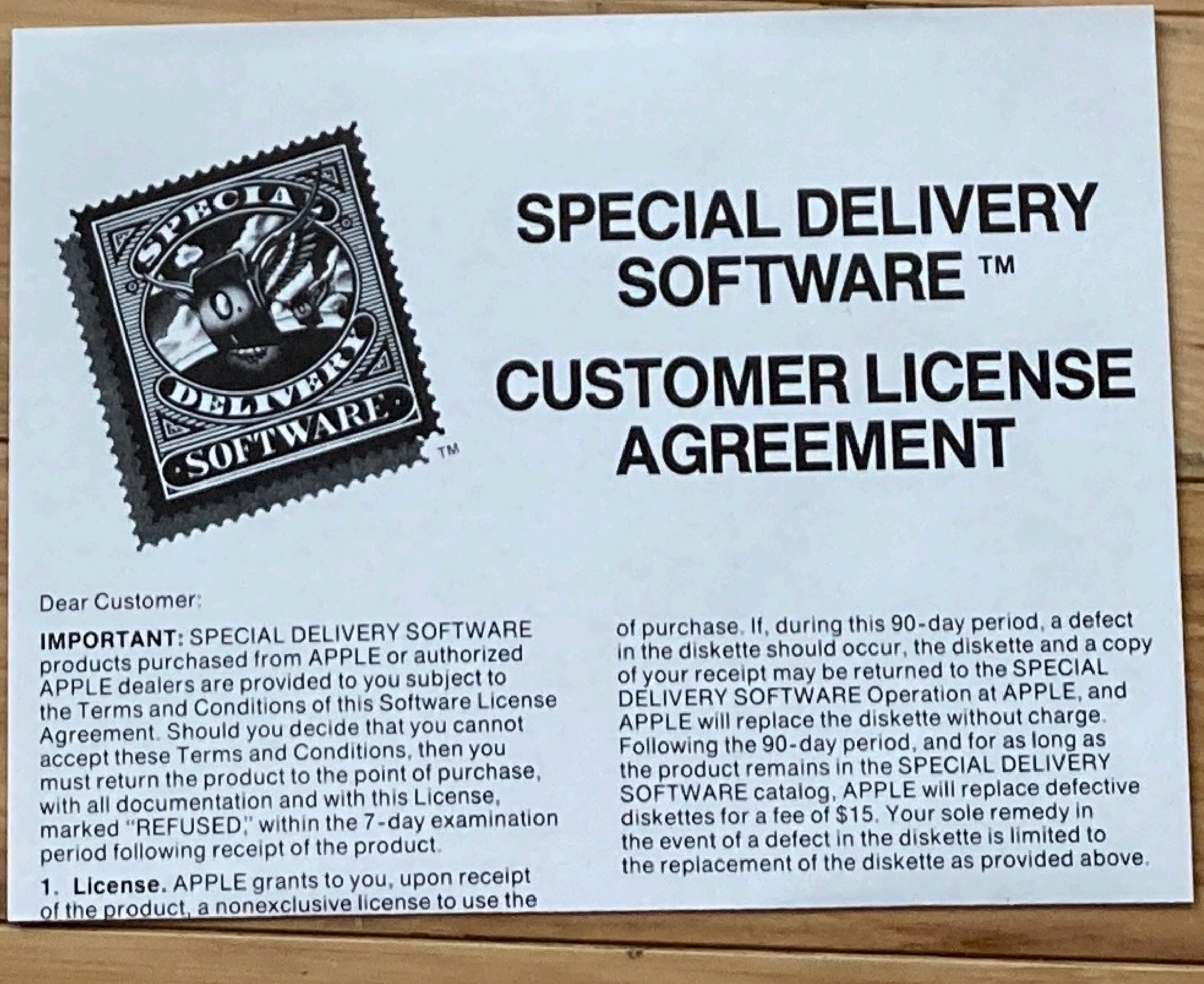



SPECIAL DELIVERY SOFTWARE ™
STEPWISE MULTIPLE REGRESSION
C2S0001 MASTER
©1981 Belanger, Boyle
652-2013-01
APPLE
SPECIAL DELIVERY SOFTWARE ™





SPECIAL DELIVERY SOFTWARE ™

CUSTOMER LICENSE AGREEMENT

Dear Customer:

IMPORTANT: SPECIAL DELIVERY SOFTWARE products purchased from APPLE or authorized APPLE dealers are provided to you subject to the Terms and Conditions of this Software License Agreement. Should you decide that you cannot accept these Terms and Conditions, then you must return the product to the point of purchase, with all documentation and with this License, marked "REFUSED," within the 7-day examination period following receipt of the product.

1. **License.** APPLE grants to you, upon receipt of the product, a nonexclusive license to use the

of purchase. If, during this 90-day period, a defect in the diskette should occur, the diskette and a copy of your receipt may be returned to the SPECIAL DELIVERY SOFTWARE Operation at APPLE, and APPLE will replace the diskette without charge. Following the 90-day period, and for as long as the product remains in the SPECIAL DELIVERY SOFTWARE catalog, APPLE will replace defective diskettes for a fee of $15. Your sole remedy in the event of a defect in the diskette is limited to the replacement of the diskette as provided above.

SPECIAL DELIVERY SOFTWARE™
STEPWISE MULTIPLE REGRESSION
C2S0001 MASTER
©1981 Belanger, Boyle
652-2013-01
SPECIAL DELIVERY SOFTWARE™
STEPWISE MULTIPLE REGRESSION
C2S0001 BACKUP
©1981 Belanger, Boyle
652-2014-01
disk II™

STEPWISE MULTIPLE REGRESSION

Written by: Robert R. Belanger, Ph.D and
Robert D. Boyle

In conjunction with Apple Computer, Inc.

you should have to switch diskettes. And that is correct. In that case, the diskette that you want to add data to is already in the drive so you can press RETURN.

However, this program is also used to add data to a pre-existing set of data, and in that case you need to find the diskette that is only partially full and put it in the drive to add to it. In either case, after RETURN the screen will display "ENTER THE VALUE OF OBSERVATION #1 FOR -- --- --", where the blank will be the name you gave to variable #1. The remaining variables for the observation should be entered as you are prompted.

In the sample for observation #1, the first variable entry is 32. Moving across, enter each variable for the observation, that is, next enter 48, then 54. You must enter the dependent variable last (in this case variable #4), which for observation #1 is 15. There is about a ten second delay from the entry of the dependent variable until you are given the choice to continue or not. This delay is the same whether you are entering two variables or 100. After each set of observations you will be asked if you want to stop. In the sample, you will reach observation #15 for each of four variable names and then enter "N" which ends the program and returns you to the menu.

The listing of the observation number is only an aid to you to keep track of the data you are entering. If, as in this example, you are adding data to an empty diskette, then the observation number shown is the current number of observations. If you are adding data to a variable diskette that already has several observations on it, don't worry that the observation # begins with "1" when you may be adding the 29th observation to the diskette. The total number of observations are kept track of internally in the program. You just need to be aware that the #1 observation corresponds to the 29th observation on the diskette and #2 is the 30th, etc.

It is important that each diskette be filled with 64 observations before another one is begun, that is, only one partially filled diskette is allowed for a given set of data. If you are ever in doubt whether the variable diskette is full, try to add to it, and if the program ends and returns back to menu, then it was full. If that happens, it is necessary to rerun the program with an empty diskette.

Data Checking And Adding Variables

Menu selection #5 will add observations to a diskette. However, sometimes it's necessary to add new variables to each observation or check the current ones and make corrections to them. To do this, you will need to select menu #4. If you run this program, you will be asked to put variable diskette #1 in the drive. Then you are to enter the number of variables per observation that you want to look at.

Next, you must enter the ID#'s for each variable, and finally, you enter the # of the first and last observation that you are interested in. The program will list variable #1 and the name associated with it. Under that will be the current value, and then the prompt to enter "Y" if you wish to change it or press RETURN to continue. Each set of variables for an observation will be listed, and you will have the opportunity to change it if you want. You can check your entry of the sample data this way, and correct any errors.

If you have more than one variable diskette and you supply numbers which encompass more than one diskette, the program will change them to look at the first diskette only. If you need to look at a second diskette, run the program a second time. Remember that this program cannot add observations to a diskette, but can only add new variables to existing observations, or change those which are already on file.

Description Of Stepwise Programs

Before running the stepwise regression analysis, it is helpful to understand what the four computational programs do. Each of the following programs is linked so that when one program ends, the next one is run:

(1) STEPWISE MULT REGR #1 reads the data off the variable diskettes and computes the sum of crossproducts for all combinations of two variables. It also calculates the sum of each variable and keeps track of the total number of observations. When a correction factor is subtracted from the sum of crossproducts, these values become the corrected crossproducts and are stored on the master diskette with the sums, the number of variables, the number of observations, and the ID# and name of each variable.

(2) STEPWISE MULT REGR #2 uses the intermediate data computed by the first program to determine which variables are selected. This process involves matrix inversion, and matrix multiplication, and many computations of F values which are compared with the "F

SPECIAL DELIVERY

SPECIAL DELIVERY
SOFTWARE ™

STEPWISE MULTIPLE REGRESSION

C2S0001 MASTER

©1981 Belanger, Boyle

652-2013-01

apple computer inc.

© 1980 by APPLE COMPUTER INC.